

REMARKS

Claims 1-50 are pending in the present Application. In the Official Action, the Abstract of the disclosure was objected to because it exceeded 150 words. Claims 13 was objected to as being of improper dependent form for failing to further limit the subject matter of claim 12. Claim 41 was rejected under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as their invention. Claims 1-15, 18-29, 32, 34-38, 41, 42, and 44-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,158,045 (You). Claims 16-17, 30-31, 33, 39, 40, 43, and 49-50 were rejected under § 103(a) as being unpatentable over You in view of U.S. Patent No. 5,533,192 (Hawley et al.). Claims 1, 20, 32, and 42 are the independent claims. The outstanding objections and rejections are respectfully traversed.

Objections to Abstract of Disclosure and Claim 13; Rejection of Claim 41

The abstract of the disclosure has been corrected. Its current word count is 137 (one hundred and thirty-seven) words. Claims 12, 13, and 41 have been canceled without prejudice. No new matter has been added.

Rejection Under § 103(a)

Claim 1 is representative of the invention and includes limitations similar to the other independent claims (20, 32, and 42). Claim 1 recites:

1. A debugger for debugging any of a plurality of debuggees, **each debuggee having a debugging type attribute** selected from **a plurality of debugging type attributes** and representative of a type of debugging to be performed with respect to the debuggee, **each debuggee also having a processor attribute** selected from **a plurality of processor**

attributes and representative of a type of processor associated with the debuggee, the debugger being instantiated on a computer and comprising:

an engine for performing debugging functions with respect to any of the plurality of debuggees, the engine including:

a plurality of debugging type blocks, each debugging type block for supporting at least one of the plurality of debugging type attributes; and

a plurality of processor blocks, each processor block for supporting at least one of the plurality of processor attributes,

wherein a particular debugging type block and a particular processor block are selected for debugging a particular debuggee based on the debugging type attribute and processor attribute of the particular debuggee.

(emphasis added). Furthermore, Fig. 3 of the present Application illustrates a debugger with a plurality of debugging type blocks (Live Kernel Block 36d, Live User-Mode Block 36d, Dump Kernel Block 36d, etc.) and a plurality of processor blocks (x86 Block 36p, Alpha Block 36p, IA64 Block 36p, etc.). Each of these blocks supports at least one of the plurality of debugging type attributes and processor attributes as shown in Fig. 2.

You, on the other hand, discloses a set of portable services for debugging computer software programs. The framework of You consists primarily of (1) a debugger server and (2) a debugger client. First, the debugger client transmits debug requests to a target server debugger object (col. 4, lines 47-49) since the client is a set of programming interfaces which define the services provided by the server (col. 8, lines 19-20). Moreover, the client of the debugger server is separated logically from the server (col. 7 line 67 to col. 8 line 1). Second, the debugger server executes as a process on a target machine thus providing for the major functionality in the portable debugging services (col. 8, lines 23-25).

Claim 1 patentably defines over You because it employs distinct elements to accomplish the debugging of a plurality of debuggees. Claim 1 employs pluralities of debugging type

attributes, processor attributes, debugging type blocks, and processor blocks in such a way that “a particular debugging type block and a particular processor block are selected for debugging a particular debuggee based on the debugging type attribute and processor attribute of the particular debuggee” (claim 1) (emphasis added). This way of debugging solves “a need ... for a single debugger engine that supports multiple debugging types and multiple processors such that supporting, updating, and maintaining the single debugger engine is greatly simplified” (Application, page 2, lines 12-14) (emphasis added).

You does not teach such elements to accomplish the debugging of a plurality of debuggees while fulfilling the above mentioned needs. While it is true that at various places of the patent You discloses (1) Non-interactive Program Debuggers, Interactive Program Debuggers, and Symbolic Debuggers (col. 6, lines 31-55), (2) a wide variety of platforms, which may vary in their microprocessor family, number of processors, etc. (col. 9, lines 17-26), and (3) a method for determining a target processor architecture that is nearly identical to determining the target operating system (col. 72, line 55 to column 73, line 5), this does not teach the distinct elements recited in claim 1. It is rather telling that You, as Examiner correctly points out, “does not expressly disclose the limitation wherein each debuggee has a debugging type attribute selected from a plurality of debugging type attributes and representative of a type of debugging to be performed with respect to the debuggee” (Office Action, page 4, lines 17-19). The fact is, You does not have in mind the debugger illustrated in Figs. 2 and 3 of the Application and recited in claim 1. Instead, You provides for a server debugger that is dependent on a client debugger (and yet is logically separate from it) for the transmittal of any particular debug requests. In particular, You focuses on transferring address references from a client debugger to a server debugger. See claims 1, 5, and 9 of You. Thus, You does not teach “A debugger for

debugging any of a plurality of debuggees, each debuggee having a debugging type attribute selected from a plurality of debugging type attributes and ... a processor attribute selected from a plurality of processor attributes ... comprising: an engine for performing debugging functions with respect to any of the plurality of debuggees, the engine including: a plurality of debugging type blocks, each debugging type block for supporting at least one of the plurality of debugging type attributes; and a plurality of processor blocks, each processor block for supporting at least one of the plurality of processor attributes” (claim 1) (emphasis added).

Hawley, cited to supplement You which “does not expressly disclose the limitation wherein each debuggee has a debugging type attribute selected from a plurality of debugging type attributes and representative of a type of debugging to be performed with respect to the debuggee” (Official Action, page 4, lines 20-22), does not teach or suggest “[a] debugger for debugging any of a plurality of debuggees, each debuggee having a debugging type attribute selected from a plurality of debugging type attributes and ... a processor attribute selected from a plurality of processor attributes ... comprising: an engine for performing debugging functions with respect to any of the plurality of debuggees, the engine including: a plurality of debugging type blocks, each debugging type block for supporting at least one of the plurality of debugging type attributes; and a plurality of processor blocks, each processor block for supporting at least one of the plurality of processor attributes” of claim 1, and thus does not cure the defects of the You reference. Thus, neither You nor Hawley, alone or in combination, teach or suggest each and every element of the claimed invention.

Claims 2-11, 14-19, 21-31, 33-40, and 43-50, depend directly or indirectly from independent claims 1, 20, 32, and 42, respectively, and are believed to be allowable for the same

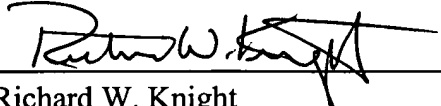
reasons. Applicants thus submit that claims 1-11, 14-40, and 42-50 patentably define over You alone, in combination with Hawley et al., or with any other reference of record. Therefore, withdrawal of the rejection to claims 1-11, 14-40, and 42-50 under § 103(a) is thus earnestly solicited by the Applicants.

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CONCLUSION

Applicants believe that the present Amendment is responsive to each of the points raised by the Examiner in the Office Action, and submit that Claims 1-50 of the Application are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

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